

L 43088-65

ACCESSION NR: AT5007918

sections, some of which are utilized for input and exit of beams. The super-period design is described. The lengthened sections were obtained as a consequence of shortening the focusing and defocusing blocks by 112 cm. The focusing properties of the magnetic channel were diminished consequently, but very little; and the limiting energy was lowered by 2-3 GeV. The construction of the magnet is described. Each of the magnetic blocks is divided lengthwise into 5 sub-blocks which are enveloped by the common winding. These sub-blocks consist of laminar two-millimeter silicon steel. These steel sheets were stamped out without subsequent mechanical working, and were subjected to sorting and intermixing in order to smooth out their magnetic characteristics. The sub-blocks are constricted by lateral welded plates without adhesion. Provision was made for windings on the poles in order to correct for pole nonlinearity and for variations in the drop reading. These windings make it possible to introduce artificial quadratic (square) nonlinearity that changes the dependence of the frequency of transverse oscillations during a pulse. In order to correct for straying of the residual field, provision has been made for windings on the yoke in series with the main winding. The sub-blocks must undergo calibration on a magnet stand in order to make correcting systems more precise and to determine the most convenient disposition of the sub-blocks along the ring. The winding of the electromagnet is made of aluminum busbars with hollow cores for cooling water. The length of the busbar is so selected that there would be no

Cord 2/4

L 43088-65

ACCESSION NR: AT5007918

2
welded joints inside the coils. The winding consists of 4 sections, two of which are disposed on the upper pole and two on the lower. The most important characteristics of the electromagnet and power supply system are described in a table. Also described are the vacuum chamber and accelerating field (obtained by 53 paired resonators with ferrite rings, which operate at the 30-th harmonic of revolution and give accelerating potential of 350 kilovolts). The ring tunnel and the general arrangement of the accelerator are shown in figures and described. The building for the injector and portions of the ring tunnel from the injector to the experimental room have been completed in the main and are ready for installation of equipment. This room, in the form of a single-aisle building without internal supports, permits one to work on beams brought into the inner and outer sides. A 90-meter arch covers this room, whose overall length is 150 meters. Provisions have been made for a second experimental room at the southwest part of the ring. Orig. has 4 figures, 2 tables.

ASSOCIATION: Institute teoreticheskoy i eksperimental'noy fiziki GKAE SSSR (Institute of Theoretical and Experimental Physics, GKAE SSSR). (2) Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury imeni D. V. Yefremova GKAE SSSR (Scientific Research Institute of Electrophysical Apparatus, GKAE SSSR).

Cord 3/4

L 43088-65

ACCESSION NR: AT5007918

(3) Radiotekhnicheskiy institut AN SSSR (Radio Engineering Institute, Academy of Sciences SSSR). (4) Gosudarstvennyy proyektnyy institut GKAE SSSR (State Planning Institute, GKAE SSSR).

SUBMITTED: 26May64

ENCL: 00

SUB CODE: EE, NP

NO REF SOV: 002

OTHER: 001

am
Card 4/4

CHIRKOV, Sergey Leonidovich; KUZ'MIN, V.G., red.; LOBANOV, Ye.M.,
red. izd-va; RIDNAYA, I.V., tekhn. red.

[Guide to safety measures for marine engine and steering
gear operators on ships of the river fleet] Pamiatka po
tekhnike bezopasnosti dlia motoristov-rulevykh sudov rech-
nogo flota. Moskva, Izd-vo "Rechnoi transport," 1962. 55 p.
(MIRA 16:6)

(Inland navigation--Safety measures)
(Marine engineering--Safety measures)

Kuz'min V. G.

4

Conjugated reactions of addition of halogens to olefins.
 IV. Preparation of β -haloethyl esters of formic, acetic, chloroacetic and trichloroacetic acids. A. I. Titov, E. E. Maklyayev, and V. G. Kuz'min. *Zhur. Obshch. Khim.* 25, 1447; *J. Gen. Chem.* 1953, 25, 709-11 (1955) (Engl. translation); *Ch. C.A.* 49, 13685c. Into 63 ml. AcOH was passed for 2 hrs. 13.21 Cl and 22.31 C.H₄ with very vigorous stirring; after washing with H₂O and NaOH there was obtained 23.1 g. $\text{CH}_2\text{CH}_2\text{CO}_2\text{H}$, b. 143-5°, d₄ 1.1465, n_D^{20} 1.4256. If 12.1 Cl and 14.1 C.H₄ are passed into AcOH as above with addit. of 32 g. Hg(OAc)₂ just before passage and a similar amt. being added at the half-point in the reaction, the yield of the ester reaches 67%. C₂H₄ (5 l.) was passed into 50 ml. AcOH, 49 g. Hg(OAc)₂, and 30 g. Br over 1 hr., yielding as above about 50% $\text{BrCH}_2\text{CH}_2\text{CO}_2\text{H}$, b. 150-61°. Passage of 2 l. Cl and 25 l. C.H₄ at 30° into 92 g. Hg(OAc)₂ (d. 1.2) gave 55.1 g. $\text{CH}_2\text{CH}_2\text{CO}_2\text{H}$, b. 130-30°, d₄ 1.1290, n_D^{20} 1.4253. If 10 g. Hg(OAc)₂ and 11 l. C.H₄ are passed into 100 g. CCl₄ with 10 g. Hg(OAc)₂ and 10 g. Hg(OAc)₂ added at the half-point, the yield of $\text{CH}_2\text{CH}_2\text{CO}_2\text{H}$ is 10 g. b. 105-106° (under 10 mm. Hg), d₄ 1.1290, n_D^{20} 1.4253. G. M. Kozlov.

MS 200

KUZ' MIN, V. G.

Conjugated reactions of addition of halogens to olefins. V. Halohydrin formation at nitrogen. A. I. Tsvet and V. G. Kuz'min. *Zhur. Obshchei Khim.* 75, 1945, 1, 106-110. *Chem. Abstr.* 39, 10, 1004 (1945).

2

45

1. The first step is to identify the key components of the system. This includes the hardware, software, and data. The hardware components are the physical devices that make up the system, such as the computer, the network, and the storage devices. The software components are the programs and applications that run on the hardware. The data components are the information that is stored and processed by the system.

3(2)

AUTHOR:

Kuz'min, V. G.

S/006/60/000/02/016/024
B007/B011

TITLE:

The Percent Circle

PERIODICAL: Geodeziya i kartografiya, 1960, Nr 2, p 63 (USSR)

ABSTRACT:

Cartographers often have to draw circle diagrams, the statistical data of which are expressed in percents. Only few minutes are needed for an ordinary diagram. If, however, the cartographer has compiled an industrial map of a territory with, say, 50 industrial centers and more, he will require several hours for the task. The figure shows an instrument, by the aid of which the diagram can be constructed directly according to the percents. This instrument is a circle which is graduated into 100 parts and where each graduation corresponds to one percent. The author demands that such instruments be produced commercially. There is 1 figure.

Card 1/1

KLEBANOV, Boris Vladimirovich, inzh.; KUZ'MIN, Vladimir Grigor'yevich, inzh.; OREKHOV, Pavel Aleksandrovich, inzh.; PROSHIN, Georgiy Aleksandrovich, kand.tekhn.nauk; LEONOV, I.S., inzh.retsensent; SOROKIN, A.A., inzh.retsensent; SERDYUK, V.K., inzh., glav.red. MAYEVSKIY, V.V., inzh. red.; GORNOSTAYPOL'SKAYA, S.H., tekhn. red.

[Repairing motor vehicles and tractors] Remont avtomobilei i traktorov. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry. Pt.1, 1961. 335 p.

(MIRA 14:5)

(Motor vehicles--Maintenance and repair) (Tractors--
Maintenance and repair)

KLEBANOV, Boris Vladimirovich, inzh.; KUZ'MIN, Vladimir Grigor'yevich, inzh.; MASLOV, Vladimir Ivanovich, inzh.; LEONOV, I.S., inzh., retsenzent; SOROKIN, A.A., inzh., retsenzent; PILIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Repair of motor vehicles and tractors] Remont avtomobilei i traktorov. Pod red. B.V.Klebanova. Moskva, Mashgiiz. Pt.2. 1962. 301 p.
(MIRA 16:2)

(Motor vehicles--Maintenance and repair)
(Tractors--Maintenance and repair)

KUZ'MIN, V.G. (Leningrad, 3, Bol'shoy prospekt, 3-a, kv. 44)

Method of exfoliative cytodiagnosis of tumors of the urinary bladder. Vop. onk. 8 no.11:97-99 '62. (MIRA 17:6)

1. Iz urologicheskogo otdeleniya (zav.- prof. I.N. Shapiro [deceased] i laboratorii eksperimental'noy morfologii (ispolnyayushchiy obyazannosti zavedyushchego - doktor med. nauk M.P. Ptokhov) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR, prof. A.I. Serebrov).

KUZ'MIN, V.G.

Comparative evaluation of the effectiveness of some methods
of vaccine chemotherapy in patients with acute dysentery.
Zhur. mikrobiol., epid. i immun. 33 no.11:143-148 N '62.
(MIRA 17:1)

1. Iz Chitinskogo meditsinskogo instituta i Chitinskoy
gorodskoy bol'nitsy.

KUZ'MIN, V.G.

Exfoliative cytodiagnosis of bladder tumors. Vop. onk. 9
no.11:68-73 '63. (MIRA 18:2)

1. Iz urologicheskogo otdeleniya (zav.- prof. I.N. Shapiro
[deceased]) i laboratorii eksperimental'noy morfologii (zav.-
doktor med. nauk M.P. Ptokhov) Instituta onkologii AMN SSSR
(dir.- deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov).
Adres avtora: Leningrad, ul. Chaykovskogo, 7, urologicheskoye
otdeleniye Instituta onkologii AMN SSSR.

AYZENBERG, B.L.; BOLOTOV, V.V.; BRIL', R.Ia.; GERASIMOV, V.N.; GREKOV, V.I.;
DOVETOV, M.Sh.; KAMENSKIY, M.D.; KLEBANOV, L.D.; KONSTANTINOV, B.A.;
KUZ'MIN, V.G.; LYUBAVSKIY, V.I.; MELENT'YEV, L.A.; MIKHALEV, N.N.;
POLYANSKIY, V.A.; RAZDROGINA, L.A.; SIVAKOV, Ye.R.; STARIKOV, V.G.;
SAVASHINSKAYA, V.I.; SHAYOVICH, L.L.

Igor' Valentinovich Gofman, 1903-1963; obituary. Trudy LIEI
no.51:3-4 '64. (MIRA 18:11)

KUZ'MIN, V.G.

Consolidated determination of labor input for general overhauling
of thermal and mechanical equipment of electric power plants. Trudy
LIMI no.19:201-217 '57. (MIRA 11:6)
(Electric power plants—Maintenance and repair)

KUZ'MIN, V.G., inzh.

Problems of raising the effectiveness of the centralized repair
of thermal and mechanical equipment in power systems. Trudy LIEI
no.29:69-103 '59. (MIRA 13:5)
(Steam power plants)

KUZ'MIN, V.G., inzh.

Meeting on questions of operational planning for electric power
plants and power systems. Elek.sta. 31 no.6:91-92 Je '60.
(MIRA 13:7)

(Electric power plants)
(Electric power distribution)

L 05074-67 EWI(d)

ACC NR: AP6013321

(N)

SOURCE CODE: UR/0413/66/000/008/0137/0138

AUTHORS: Muratikov, L. N.; Otvagin, Ye. F.; Chentsov, B. V.; Tsykina, S. F.; Kuz'min, V. G.

ORG: none

TITLE: An automatic steering device for a ship, Class 65, No. 180974

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 137-138

TOPIC TAGS: ship component, ship navigation, rudder, automatic central design

ABSTRACT: This Author Certificate presents an automatic steering device for a ship. The device includes a gyro induction compass with a course angle signal controller coupled with the course angle signal receiver of the follow-up system and with the output signal amplifier. The device also contains coarse and fine readout scales, reducing gear trains, and a tachometer-generator. The design increases the reliability of the automatic stabilization of the motion to any current value of the course and insures smooth turns of the ship with a given angular circulation rate. The course angle signal controller of the gyro induction compass and the receiver of the follow-up system are connected by electrical circuits. The motor of the follow-up system processes the cumulative signal of the controller and receiver. The stator of the course angle controller and the tachometer-generator are kinematically connected with the reducing gear train of the follow-up system when the controller rotor is stationary.

UDC: 629.12.014.6-523

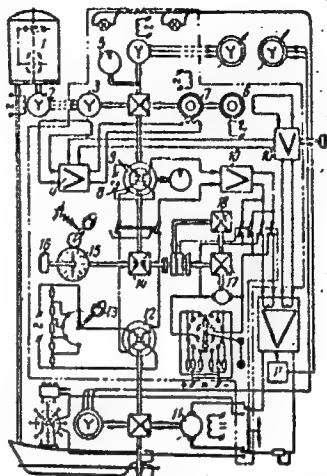
Card 1/3

L 05074-67

ACC NR: AP6013321

The reducing gear train generates electric signals proportional to the deviation of the ship from the course and to the angular rate of the change of the course. Each of the signals enters the amplifier and is sent to the operating motor of the rudder cross arm (see Fig. 1).

Fig. 1. 1 - gyro induction compass; 2 - course angle signal detector; 3 - signal receiver; 4 - output signal amplifier; 5 - fine readout scale; 6 - tachometer-generator; 7 - motor of the follow-up system; 8 - stator of the course angle controller; 9 - rotor of the course angle controller; 10 - amplifier; 11 - operating motor of the rudder cross arm; 12 - rudder negative feedback detector; 13 - negative feedback coefficient regulator; 14 - reducing gear train of the turn controller of the ship; 15 - scale of a given change of the course; 16 - crank; 17 - motor-integrator; 18 - reducing gear train



The reducing gear train generates electric signals proportional to the deviation of the ship from the course and to the angular rate of the change of the course. Each of the signals enters the amplifier and is sent to the operating motor of the rudder

Card 2/3

L 05074-67

ACC NR: AP6013321

cross arm (see Fig. 1). The rotor of the controller is electrically connected with the negative feedback detector. This feedback detector is equipped with a negative feedback coefficient regulator. The rotor of the course controller is kinematically connected with the reducing gear train of the turn controller of the ship for a relative given course. This turn controller reducing gear is equipped with a course change scale, a friction clutch, and with a crank which is used for establishing the new course readout on the scale. To match the position of the course controller rotor with the stator, the rotor winding may be connected to the input of the amplifier, and the negative feedback detector winding may be disconnected. To make the selection of the integration coefficient more precise, the output axis of the motor-integrator is connected to the mechanical differential by a reducing gear train. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 02Apr64

Card 3/3

fv

KUZ'MIN, V.G.

Effect of pentoxyl, a derivative of the pyrimidine group, combined with chemo- and vaccine therapy on the course of acute dysentery in adults. Report No.1: Effect of pentoxyl combined with anti-bacterial preparations on the course of acute dysentery. Zhur. mikrobiol., epid. i immun. 41 no.1:53-59 Ja '64.

(MIRA 18:2)

1. Chitinskiy meditsinskiy institut.

KUZ'MIN, V.I., inzhener.

~~Some problems in economizing metal and improving the~~
serviceability of FB-1, 9 peat cutters. Sel'khoz mashina
no.8:22-23 Ag '56. (MLRA 9:10)

1. Sibirskaya mashinostpytatel'naya stantsiya.
(Peat machinery)

18.8100

25937
S/136/61/000/008/005/005
E193/E135

AUTHORS: Kapustina, M.I., Candidate of Technical Sciences;
Karnaushenko, N.A., Engineer; Savchenko, A.M.,
Engineer; and Kuz'min, V.I., Engineer.

TITLE: Determination of thermo-physical properties of a
titanium alloy 48-OT-3 (48-OT-3)

PERIODICAL: Tsvetnyye metally, 1961, No.8, pp. 73-79

TEXT: Knowledge of the thermo-physical properties of metals
and alloys is necessary in selecting both the rational heating
schedules during various fabrication processes and the optimum
operating conditions for components subjected to variations in the
ambient temperature. The object of the present investigation was
to determine the thermal conductivity (λ , kcal/m h °C), specific
heat (C , kcal/kg °C), and the thermal diffusivity (a , mm²/h)
($a = \lambda/C\gamma$, where γ is the density of the material) of the
48-OT-3 Ti-base alloy. This alloy contained 3.5-4.0% Al, not more
than 0.1% nitrogen, 0.1% oxygen and traces of hydrogen. The
measurements were carried out at temperatures ranging from 100 to
1025 °C. The magnitude of a and C only was determined;
Card 1/9

Determination of thermo-physical ...

25937
S/136/61/000/008/005/005
E193/E135

λ was calculated from these data ($\lambda = aC\gamma$), the appropriate correction being applied for the thermal expansion of the alloy. The bulk of the paper is devoted to a detailed description of the experimental technique and equipment used. A technique developed by N.Yu. Tayts and E.M. Gol'dfarb (Ref.2: Zavodskaya laboratoriya, 1950, No.3) and based on a method proposed by G.M. Kondrat'yev (Ref.1: Teplovyye izmeneniya (book "Thermal Changes"), Mashgiz, 1957) was used by the present authors for the determination of a . The method consists in solving the differential equation of the thermal diffusivity for a slab heated at a constant rate. If the temperature gradient between the surface and the axis of a cylindrical slab at the initial moment is Δt_0 , then

$$\frac{\Delta t}{v \tau} = \frac{R^2}{4a \tau} - \left(\frac{R^2}{a \tau} - \frac{4 \Delta t_0}{v \tau} \right) \Phi \left(\frac{a \tau}{R^2} \right) \quad (1)$$

where: v is the constant heating rate ($^{\circ}\text{C/h}$); τ is the time (h); a is the thermal diffusivity (mm^2/h); and $\Phi(a\tau/R^2)$ is the function of the Fourier criterion. In practice, this method consists in measuring the temperature on the surface and in the

Card 2/ 9

Determination of thermo-physical

25937
S/136/61/000/008/005/005
E193/E135

interior of a specimen (cylindrical in the present case), heated at a constant rate in a specially designed furnace with low thermal inertia. From the measured temperature gradient at the beginning and end of each heating interval, and from the known heating rate, $\Delta t_0/vt$ and $\Delta t/vt$ are calculated, after which the average value of α is determined. The advantage of this method consists in that the formulae employed do not depend on the external heat transfer conditions. The method used in the present investigation for determining C is based on the principle of heat balance and has been developed by "Gintsvetmet". It is best described with reference to Fig.4, which shows the experimental assembly comprising the following items: 1, the material tested; 2 and 3, screening vessel and its lid; 4, electric furnace; 5, furnace cover; 6, portable potentiometer; 7, resistance box; 8, step-down transformer; 9, mirror galvanometer; T_0 , thermocouple measuring the temperature at the specimen axis; T_c and T_n , differential thermocouple housed in the screening vessel wall. A constant quantity of heat per unit time is supplied to the specimen, and the temperature t_0 at the specimen axis is measured as well as the temperature gradient, Δt , across the screening vessel wall.

Card 3/9

Determination of thermo-physical

25937
S/136/61/000/008/005/005
E193/E135

When the temperature at the specimen axis is raised from zero to t °C, the heat balance is described by:

$$\left(F \frac{\lambda}{s} \rho \right) \Delta t_1 z_1 = q_{ak} + i_1 w_1 \quad (3)$$

where: F is the surface area (m^2) of the screening vessel through which heat is conducted; λ is the thermal conductivity coefficient of the screening vessel material ($cal/m^2 h$ °C); s is the screening vessel wall thickness (m); ρ is a correction factor taking into account the fact that heat flows not through a flat surface but through a cylindrical wall and a lid; Δt_1 is the average temperature gradient across the screening vessel wall (°C); z_1 is the time (h) required to raise the temperature in the centre of the crucible from zero to t °C; q_{ak} is the heat (kcal) accumulated in the screening vessel in the time z_1 ; i_1 is the heat content (kcal/kg) of the specimen at t °C; and w_1 is the weight of the specimen (kg). The experiment is repeated three times: twice on a standard material with a known heat content, specimens of different weight (w_1 and w_2) being used each time, and

Card 4/ 9

25937

S/136/61/000/008/005/005

E193/E135

Determination of thermo-physical ...

once on the material studied, the weight of the test piece in this case being w_3 . Three heat balance equations are obtained in this manner for each of the temperature intervals selected, and from these the formula for the heat content of the material studied is derived in the form of:

$$i_3 = \frac{i_2 w_2 - i_1 w_1}{w_3} \left(\frac{\Delta t_3 z_3 - \Delta t_1 z_1}{t_2 z_2 - t_1 z_1} \right) + \frac{i_1 w_1}{w_3} \quad (4)$$

Since it was found that the temperature-dependence of heat content of copper was not linear, nickel was used as the standard material in the present investigation. The results of the measurements of thermal diffusivity of the 48-OT-3 alloy are given in Table 1, under the following headings: 1) alloy temperature, °C; 2) a , m^2/h . The results of the specific heat measurements are tabulated and also reproduced graphically in Fig.6, where the specific heat C (kcal/kg °C) is plotted against the temperature (°C), curve 1 showing the actual C at a given temperature, and curve 2 showing the average C for any 20 °C to t_0 temperature interval. Finally,

Card 5/9

Determination of thermo-physical

25937

S/136/61/000/008/005/005

E193/E135

the data on thermal conductivity, calculated from $\lambda = \alpha \gamma$, are given in Table 2 under the following headings: 1) temperature, °C; 2) λ , kcal/m h °C. The investigation was directed by Doctor of Technical Sciences D.I. Starchenko. There are 6 figures, 3 tables and 3 Soviet references.

ASSOCIATION: Zhdanovskiy metallurgicheskiy institut
(Zhdanov Metallurgical Institute)

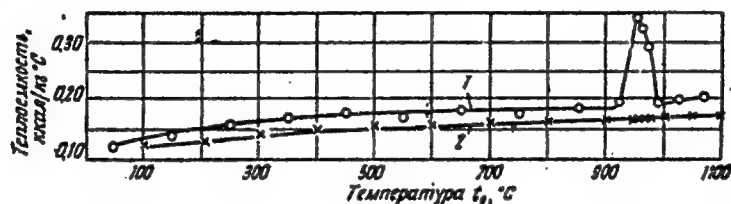


Fig. 6

Card 6/ 9

S/136/63/000/002/004/006
E193/E383

AUTHORS: Starchenko, D.I. and Kuz'min, V.I.

TITLE: A study of the effect of speed on some parameters of rolling aluminium and copper

PERIODICAL: Tsvetnyye metally, no. 2, 1963, 62 - 67

TEXT: The authors studied the effect of the rolling speed in the 4.55-30.1 m/s range on elongation, forward slip, friction coefficient and roll-pressure in cold-rolling (dry and with kerosene used as a lubricant) of copper and aluminium. The experiments were conducted on a two-high stand with polished steel rolls, 290 mm in diameter and 500 mm long. The aluminium and copper specimens measured, respectively, 3.9 x 200 x (700-1200) mm and 5.9 x 60 x 700 mm. All the results are reproduced graphically. Thus, in Fig. 1, the elongation $\mu = \ell/L$ (where L is the initial and ℓ the final length of the specimen) of aluminium strip is plotted against the peripheral velocity of the rolls (m/s), curves 1-6 relating to dry rolling with reduction per pass equal to 0.42, 0.75, 0.85, 1.23, 1.33 and 1.97 mm, respectively, and curves 7-12 representing results obtained with a lubricant, the Card 1/43

A study of the effect

S/136/63/000/002/004/006
E193/E383

corresponding reductions per pass being 0.27, 0.43, 0.71, 0.89, 1.26 and 1.58 mm. The coefficient of forward slip was defined as:

$$s = \frac{l_{\pi} - l_B}{l_B}$$

where l_B is the distance between two longitudinal (parallel to the roll axis) scratches on the roll surface and l_{π} is the distance between impressions made by these scratches on the rolled material. In Fig. 3, $s(\%)$ in rolling aluminium is plotted against the peripheral velocity of the rolls (m/s), curves 1-6 relating to dry rolling and values of μ equalling 1.12, 1.24, 1.28, 1.46, 1.51 and 2, curves 7, 9, 11, 12 relating to wet rolling and values of μ equalling 1.07, 1.23, 1.5 and 1.7. Finally, in Fig. 5, the average roll pressure (p , kg/mm²) in rolling aluminium is plotted against the peripheral velocity (m/s) of the rolls, curves 1-6 relating to dry rolling and values of μ equalling 1.11, 1.24, 1.28, 1.46, 1.52 and 2, curves 7-12 relating to wet rolling and values of μ equalling 1.06, 1.18, 1.21, 1.29, 1.46 and 1.63. It was concluded

Card 2/2

S/136/63/000/002/004/006
E193/E383

A study of the effect

that, on increasing the roll speed to a sufficiently large degree, all the parameters studied changed in a favourable direction. This meant that by increasing the roll speed the production of the plant was increased with a corresponding decrease in the power consumption. There are 6 figures and 1 table.

Card 3/8

ACCESSION NR: AR4041537

S/0137/64/000/004/D013/D016

SOURCE: Ref. zh. Metallurgiya, Abs. 4D92

AUTHOR: Dontsov, P. M.; Kuz'min, V. I.

TITLE: Riveting of austenitic steels during beding and straightening

CITED SOURCE: Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, vy*p. 11, 1963, 123-126

TOPIC TAGS: austenitic steel, bending, straightening, riveting

TRANSLATION: During manufacture of high-quality profiles from austenitic steel with high content of Mn (up to 17%) the necessary level of mechanical properties is ensured when hot rolling is finished at a temperature $\leq 850^\circ$. This is connected with the special physical properties of the steel, due to which recrystallization in the process of hot plastic flow is sharply braked at a definite temperature and strength of the steel increased due to work hardening. Rolling of steel at a

Card 1/2

ACCESSION NR: AR4041537

higher temperature inevitably is accompanied by lowering to greater or lesser degree the strength of the steel (σ_s usually decreases by 2-8 kg/mm²), per and articles become off-grade. The investigated metal by standard sizes of profiles was divided into 2 groups: group I — equal side angle irons 25 x 25 x 3, 25 x 25 x 4, 30 x 30 x 4, 40 x 40 x 5 millimeters; group II — equal side angle irons 60 x 60 x 8, 65 x 65 x 8, 90 x 90 x 8, 75 x 75 x 6 millimeters. Strips rejected for insufficient magnitude σ_s were subjected in cold state to additional bending and straightening; here the roller-type straightening machines are aligned such that the arrow of sag and the wave of the strip were the maximum possible for a machine of the given design. As an example there are given conditions of bending and straightening of one of the experimental profiles on a 9-roller machine with the step of the rollers 600 millimeters. The investigation gave the possibility to offer a simple method of improvement of mechanical properties of high-quality rolling from austenitic steels.

SUB CODE: MM

ENCL: 00

Card 2/2

KUZ'MIN, V.I.

Causes of scale being folded-in during rolling. Izv. vys. ucheb.
zav.; chern. met. 6 no.6:96-99 '63. (MIRA 16:8)

1. Zhdanovskiy metallurgicheskiy institut.
(Rolling (Metalwork)--Defects)

[illegible]

Card 1/2

ACQUISITION OF

UNDER THE
DEVELOPMENT OF A
STATE OF THE ART
AND THE
ACQUISITION OF
Nuclear Research

THE
RE

SOURCE: Ref. zn. Metallurgiya. Aug. 1945

57

Card 1/2

rolling from the corresponding cold rolled metals. Rolling speed in

ACCESSION NR: AP4041044

8/0120/64/000/003/0170/0171

AUTHOR: By*chkov, Yu. F.; Goncharov, I. N.; Kuz'min, V. I.;
Khukhareva, I. S.

TITLE: Effect of heat treatment on the properties of superconductive
zirconium-niobium alloys

SOURCE: Priory* i tekhnika eksperimenta, no. 3, 1964, 170-171

TOPIC TAGS: ~~APPROVED FOR RELEASE: Monday, July 31, 2000~~ ~~CIA-RDP86-00513R000928020~~
critical current density, superconducting alloy, alloy critical tem-
perature

ABSTRACT: The effect of heat treatment on the critical temperature (T_K) and critical current density (j_K) of niobium-zirconium alloys containing 65—80% Zr was investigated. The alloy specimens were melted from iodide zirconium and electron beam refined niobium in an arc furnace in an argon atmosphere. After rolling from 5 to 1 mm, the specimens were annealed and rolled to 0.03—0.04 mm. The critical current density was measured at 4.2K in a magnetic field parallel to the rolling plane and perpendicular to the current direction. The

Card 1/4

ACCESSION NR: AP4041044

dependance of T_K and j_K on annealing temperature in the 27-oe field is shown in Fig. 1 of the Enclosure. An increase in j_K after annealing at 400—500C was caused by a change in the structure of the β -phase or precipitation of the metastable ω -phase. The x-ray diffraction patterns revealed three phases on the specimen surface: an initial β -phase with 80% Zr, α -Zr, and a small quantity of β -phase with 15% Zr. At a depth of 0.05 mm, the α -phase and Nb β -phase with 15% Zr disappeared. Thus in the formation of new phases, an initial stage of recrystallization occurs only in a thin surface layer. Prolonged annealing at 570C raises the T_K , but lowers the j_K (see Fig. 2). Orig. art. has: 2 figures.

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (Joint Institute of Nuclear Research).

SUBMITTED: 12Jun63

ATD PRESS: 3076

ENCL: 02

SUB CODE: MM

NO REF SOV: 001

OTHER: 003

Cord

2 / 4

ACCESSION NR: AP4041044

ENCLOSURE: 01

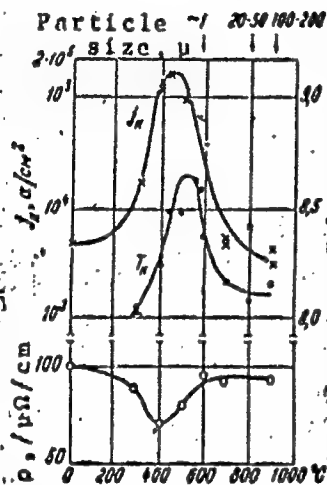


Fig. 1. Dependence of j_k and T_k on annealing temperature (annealing time 1 hr) for Nb + 80% Zr alloy (magnetic field 27 oe)

Card 3/4

ACCESSION NR: AP4041044

ENCLOSURE: 02

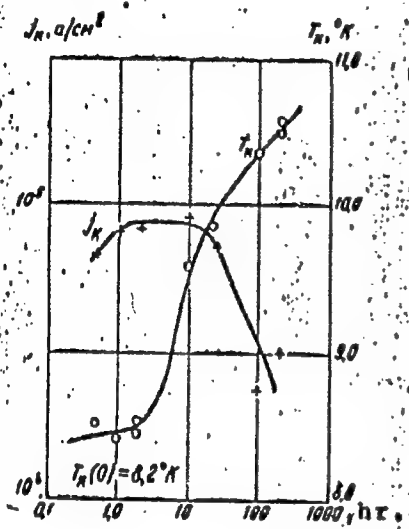


Fig. 2. Dependence of J_K and T_K on annealing time at 570°C Nb + 80% Zr alloy (magnetic field 27 oe)

ACC NR: AT6032375

SOURCE CODE: UR/0000/66/000/000/0108/0114

AUTHOR: Davydov, V. P.; Semenov, L. V.; Kuz'min, V. I.

ORG: None

TITLE: The economic efficiency of processing low octane gasolines

SOURCE: AN SSSR. Institut goryuchikh iskopayemykh. Novyye sposoby polucheniya khimicheskikh produktov na osnove goryuchikh iskopayemykh (New methods for the preparation of chemical products based on mineral fuels). Moscow, Izd-vo Nauka, 1966, 108-114

TOPIC TAGS: petroleum engineering, fuel octane rating, pyrolysis, hydrocarbon,

gasoline

ABSTRACT: The authors discuss the economic efficiency of processing low octane gasolines at the present time in the Soviet Union. The only method for processing low octane fractions that will be available up to 1970 is pyrolysis in tubular furnaces designed for gaseous and liquid raw hydrocarbons. Studies carried out by several institutes have proved the economic efficiency of pyrolytic processing of low octane gasoline fractions. This is explained by the fact that complex processing of raw hydrocarbons reduces capital investment and operating expenditures by the simultaneous production of an entire series of products as compared to the most progressive methods of producing them individually. Pyrolysis in tubular furnaces is the most

Card 1/2

ACC NR: AT6032375

efficient means for processing liquified gases and their mixtures with dry hydrocarbon gases and gasoline fractions. Two goals in processing low octane gasoline by pyrolysis in tubular furnaces are considered: 1. chemical--producing a series of hydrocarbon and divinyl products for the chemical industry; 2. chemico-fuel (butylene-divinyl)--concentrating on the production of a pyrocondensate used as a high octane automobile fuel component. Projected statistics for 1970 show that 60% of the entire requirement in pyrolytic raw materials will be filled by using low octane gasoline. A table is given showing the economic efficiency of various pyrolytic processes based on one million tons of low octane gasoline. These data show that high temperature pyrolysis in tubular furnaces using the propylene process with subsequent complex pyrolytic resin processing is most efficient. Such a process ensures practically the same output of propylene, isobutylene, divinyl and 2.45 times more ethylene than the butylene-divinyl process. An analysis of the technical and economic indices of complex processing of low octane gasolines also shows the high economic efficiency of extracting valuable chemical products from pyrolytic resin. Orig. art. has: 2 tables.

SUB CODE: 0721/ SUBM DATE: 29Mar66

Card 2/2

L 07887-67 ENT(d)/ENT(n)/ENP(k)/ENP(h)/ENP(v)/ENP(l) EN/80

ACC NR: AT6021733

(N)

SOURCE CODE: UR/0000/66/000/000/0105/0115

AUTHOR: Voytetskiy, V. V.; Kuz'min, V. I.

ORG: none

TITLE: The outlook for the use of universal hydraulic controllers in the automatic control systems of shipboard steam power plants

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 105-115

TOPIC TAGS: automatic control system, hydraulic device, hydraulic equipment, pneumatic device, pneumatic control, marine engine, steam auxiliary equipment, steam power plant

ABSTRACT: Hydraulic control elements suitable for shipboard use in the steam power plant control system are described and their advantages over other devices are given. In the design of control systems for use on ships, special consideration must be given to the difficult operating conditions: a) operation in presence of rolling, vibration and shock stresses; b) high humidity and temperature of the ambient air; c) closed loop circulation for the feed water with overflow into reservoirs with excess pressure; d) considerable distances between the individual control elements; and e) possibility of feed water contamination. Current automatic control systems, based on feed water as

Card 1/2

L 07887-67

ACC NR: AT6021733

the control medium and jet type amplifiers have several disadvantages: a) lack of accurate and smooth gain control, which necessitates tailoring of the modules to the specific purpose, precludes the use of universal elements; b) due to the input signal summation method through a common mechanical lever an interaction of these signals cannot be avoided; c) the mechanical means for interconnection of various hydraulic elements makes the system complex and inflexible; d) the jet amplifier, while reliable, has some shortcomings, e. g., the limitation of the output power by the diameter of the valve nozzle; and e) the summation of the input signals on a single mechanical lever requires low friction bearings or knife-edge support. These are difficult to make and are particularly prone to failures. To overcome these disadvantages, universal control elements designed similar to widely-used pneumatic control elements were designed. The exception is that feed water is used as the control medium. The main module of this new system is a membrane-type operational amplifier which can be used for a variety of purposes. In the pneumatic system, the summation of the input signal can be realized either through the resistance or membrane method. For the hydraulic system, the former is more advantageous. Small-bore tubes are used as resistances (chokes). The performance of a summation hydraulic amplifier is analyzed in detail with diagrams, plots and mathematical derivations. Orig. art. has: 10 figures.

SUB CODE: 13,14/

SUBM DATE: 03Feb66/

ORIG REF: 003/

OTH REF: 001

Card 2/2 *gh*

KU: MIN, V.I.

Biology of flowering and the structure of flowers in the
knotweed *Polygonum ceriarium* Grig. Bot. zhur. 49 no.5:225-
731 My '64. (MIRA 1748)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

KUZ'MIN, V. I.

Benign nonepithelial tumors of the stomach. Vop. onk. 8 no.4:
22-26 '62. (MIRA 15:4)

1. Iz 2-go khirurgicheskogo otdeleniya (zav. - dots. V. I.
Yanishevskiy) Instituta eksperimental'noy i klinicheskoy
onkologii AMN SSSR (dir. - deystv. chl. AMN SSSR prof. N. N.
Blokhin)

(STOMACH--TUMORS)

PIRYATIN, Vasiliy Dmitriyevich; KUZ'MIN, V.I., kand. tekhn. nauk,
otv. red.; NESTERENKO, A.S., red.; ALEKSANDROVA, G.P.,
tekhn. red.

[Processing the results of experimental measurements by the
method of least squares] Obrabotka rezul'tatov eksperimental'-
nykh izmerenii po sposobu naimen'shikh kvadratov. Khar'kov,
Izd-vo Khar'kovskogo univ. Ft.1. [Linear and parabolic relation-
ships between measurement results] Priamolineinaya i paraboli-
cheskaya zavisimost' mezhdru rezul'tatami izmerenii. 1962. 215 p.
(MIRA 15:11)

(Least squares)

(Mensuration)

KUZ'MIN, V.I., dots., kand. tekhn. nauk; BULOCHOV, E.A., inzh.; TIL', A.V.,
inzh.

ALS-1 instrument used for locating faults in communication lines
having steel and nonferrous metal wiring. Sbor. nauch. trud. ~~LETIZHT~~
no.5:118-132 '53. (MIRA 11:3)
(Pulse techniques (Electronics)) (Railroads--Communication systems)

KUZ'MIN, V.I., inzh.

Improve the designs and types of lake lumber rafts. Rech. trans.
18 no.8:22-23 Ag '59. (MIRA 12:12)
(Lumber--Transportation)

KUZ'MIN, V.I., inzh.

Procurement, storage and processing of cotton in the Azerbaijan
S.S.R. Sbor.nauch.-issl.rab.TSNIIKHProma no.9:83-107 '62.
(MIRA 17:4)

KUZ' MIN, V.I.

KUZ'MIN, V.I., kand. tekhn. nauk.

Some results of experimentally evaluating errors of analogy by the
mathematical statistics method. [Trudy] VNIMI no.31:105-113 '57.
(Ores—Sampling and estimation) (MIRA 11:1)
(Mathematical statistics)

KUZ'MIN, V.I., dotsent; KRASHOPEROV, M.Ya., inzh.

Investigating the accuracy and conditions for using the standard specifications method. Izv.vys.ucheb.zav.; gor.zhur. no.11: 52-58 '58. (MIRA 12:8)

1. Khar'kovskiy gornyy institut.
(Donets Basin--Coal geology) (Prospecting)

KUZ'MIN, V.I., dotsent; ZARAYSKIY, V.N., inzh.

Extent of errors in the analogy of the reserves of mineral deposits.
Izv. vys. ucheb. zab; gor.zhur. no.2:41-50 '61. (MIRA 14:3)

1. Khar'kovskiy gornyy institut. Rekomendovana kafedroy
marksheyderskogo dela Khar'kovskogo gornogo instituta.
(Assaying)

VASIL'KOVA, N.N.; KUZ'MIN, V.I.

Alteration of datolite bearing rocks in the zone of hypogenesis.
Geol.rud.mestorozh. no.6:68-71 N-D '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo
syr'ya.

(Datolite)

KUZ'MIN, V. I.

Calculation of mean volume weight from a definite number of
calculations. Izv. vys. ucheb. zav.; gor. zhur. no.9:66-69
'61. (MIRA 15:10)

1. Khar'kovskiy gornyy institut. Rekomendovana kafedroy
markheyderskogo dela.

(Ores—Sampling and estimation)

KUVAYEV, N.N., kand. tekhn. nauk; KUZ'MIN, V.I., inzh.

Protecting installations in mining at great depths. Gor. zhur.
no.2:70-74 F'62. (MIRA 17:2)

1. Krivorozhskiy opornyy punkt Vsesoyuznogo nauchno-issledovatel'skogo marksheyderskogo instituta.

ZARAYSKIY, V.N.; KUZ'MIN, V.I.

Determination of the variability of deposit indices with the aid
of secondary differences. Izv.vys.ucheb.zav.; geol. i razv. 8
no.1:94-96 Ja '65. (MIRA 18:3)

1. Khar'kovskiy institut gornogo mashinostroyeniya avtomatiki i
vychislitel'noy tekhniki.

KUZ'MIN, V.I.

Third Moscow Conference of Young Oceanographers. Okeanologia
2 no.5:944 '62. (MIRA 15:11)
(Oceanography—Congresses)

BROVIKOV, I.S.; STREKALOV, S.S.; KUZ'MIN, V.I.

Theoretical concept of the energy spectrum of wind waves.
Okeanologiya 2 no.5:822-834 '62.

(MIRA 15:11)

1. Morskoy gidrofizicheskiy institut AN USSR.
(Waves--Spectra)

STREKALOV, S.S.; KUZ'MIN, V.I.

Empirical spectra of wind waves. Okeanologiya 2 no.1:67-71 '62.
(MIRA 15:2)

1. Morskoy gidrofizicheskiy institut AN USSR.
(Waves)

KUZ'MIN, V.J. inzh.

Increasing the strength and the wave resistance of rafts. Rech.
transp. 20 no. 8:10-11 Apr '61. (MIRA 14:10)
(Rafts)

ACC NR: AP7005676 (N) SOURCE CODE: UR/0413/67/000/002/0148/0148
INVENTOR: Krasulin, Yu. L.; Kozhevnikov, A. P.; Kuz'min, V. I.
ORG: none
TITLE: A method of ultrasonic welding with heating of the parts being welded. Class 49, 190763
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 148
TOPIC TAGS: ultrasonic welding, ~~miniature part~~ welding technology
ABSTRACT: This Author Certificate introduces a method of ultrasonic welding with heating of the parts being welded. To improve the quality of the joints in welding miniature parts, the parts are heated indirectly through heat transfer from the electrically heated welding tool. [MS]
SUB CODE: 13/ SUBM DATE: 03 Jul 67/ ATD PRESS: 5117

Card 1/1

UDC: 621.791.16

ACC NR: AP7001931

SOURCE CODE: UR/0125/66/000/012/0060/0061

AUTHOR: Krasulin, Yu. L.; Kozhevnikov, A. P., Kuz'min, V. I. (Moscow)
(Moscow) (Moscow)

ORG: none

TITLE: Ultrasonic welding of microcircuits with indirect heating of elements

SOURCE: Avtomaticheskaya svarka, no. 12, 1966, 60-61

TOPIC TAGS: ~~microcircuit welding~~, ultrasonic welding, *micro electronic circuit*

ABSTRACT: A method has been developed for welding elements of microcircuits made of dissimilar materials, for instance gold or aluminum welded to silicon or thin films deposited on a semiconductor or ceramic substrate. The method combines ultrasonic welding with simultaneous indirect preheating of the welded parts done by passing a current pulse through a section of the welding tool (See Fig. 1) Experiments showed that the timing of the application of ultrasound depends on the wire material. The best results in welding aluminum wire 0.1 mm in diameter to gallium arsenide and silicon, or gold, tantalum or aluminum films were achieved with ultrasound applied 0.3-0.4 sec prior to heat application. In the case of copper wire and gold film, ultrasound must be

Card 1/2

ACC NR: AP7001931

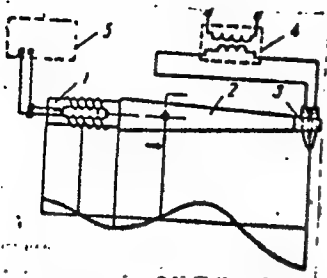


Fig. 1
Layout of ultrasonic welder with indirect heating of welded elements.

1. Transducer; 2. waveguide; 3. welding tool; 4. heater; 5. ultrasonic generator

applied 0.2 sec after the heat application. Orig. art. has: 3 figures and 1 table.

SUB CODE: 13,09,44 SUBM DATE: 04Mar66/ ORIG REF: 004

Card. 4/2

L 37002-66 EWT(m)/T/EWP(v)/EWP(t)/EWP(k)/ETI JD/MM

ACC NR: AP6021487

SOURCE CODE: UR/0413/66/000/011/0129/0129

INVENTOR: Krasulin, Yu. L.; Kuz'min, V. I.; Nikitin, V. G.

38
P

ORG: none

TITLE: Method of pressure welding microscopic parts with indirect heat input. Class 49, No. 182490

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 129

TOPIC TAGS: welding, micropart welding, pressure welding

ABSTRACT: This Author Certificate introduces a method of pressure welding microparts with indirect heat input supplied by an electrically heated punch. To preserve the initial properties of one of the welded materials, to facilitate the welding of low-ductility materials, and to increase the efficiency of the process, the punch is heated by a current pulse.

[ND]

SUB CODE: 13/ SUBM DATE: 30Jan64/ ATD PRESS: 5035

Card 1/1

PP

UDC: 621.791.66

L 07887-67 EWT(d)/EWT(m)/EWP(k)/EWP(h)/EWP(v)/EWP(1) DJ/GD

ACC NR: AT6021733

(N)

SOURCE CODE: UR/0000/66/000/000/0105/0115

AUTHOR: Voytetskiy, V. V.; Kuz'min, V. I.

ORG: none

TITLE: The outlook for the use of universal hydraulic controllers in the automatic control systems of shipboard steam power plants

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 105-115

TOPIC TAGS: automatic control system, hydraulic device, hydraulic equipment, pneumatic device, pneumatic control, marine engine, steam auxiliary equipment, steam power plant

ABSTRACT: Hydraulic control elements suitable for shipboard use in the steam power plant control system are described and their advantages over other devices are given. In the design of control systems for use on ships, special consideration must be given to the difficult operating conditions: a) operation in presence of rolling, vibration and shock stresses; b) high humidity and temperature of the ambient air; c) closed loop circulation for the feed water with overflow into reservoirs with excess pressure; d) considerable distances between the individual control elements; and e) possibility of feed water contamination. Current automatic control systems, based on feed water as

Card 1/2

L 07887-67

ACC NR: AT6021733

the control medium and jet type amplifiers have several disadvantages: a) lack of accurate and smooth gain control, which necessitates tailoring of the modules to the specific purpose, precludes the use of universal elements; b) due to the input signal summation method through a common mechanical lever an interaction of these signals cannot be avoided; c) the mechanical means for interconnection of various hydraulic elements makes the system complex and inflexible; d) the jet amplifier, while reliable, has some shortcomings, e. g., the limitation of the output power by the diameter of the valve nozzle; and e) the summation of the input signals on a single mechanical lever requires low friction bearings or knife-edge support. These are difficult to make and are particularly prone to failures. To overcome these disadvantages, universal control elements designed similar to widely-used pneumatic control elements were designed. The exception is that feed water is used as the control medium. The main module of this new system is a membrane-type operational amplifier which can be used for a variety of purposes. In the pneumatic system, the summation of the input signal can be realized either through the resistance or membrane method. For the hydraulic system, the former is more advantageous. Small-bore tubes are used as resistances (chokes). The performance of a summation hydraulic amplifier is analyzed in detail with diagrams, plots and mathematical derivations. Orig. art. has: 10 figures.

SUB CODE: 13,14/

SUBM DATE: 03Feb66/

ORIG REF: 003/

OTH REF: 001

Card 2/2 9

BORISOV, P.A.; KUZ'MIN, V.I.

Industrial waste of petroleum refining is a valuable raw material.
Stroi. mat. 11 no.8:21-22 Ag '65. (MIRA 18:9)

CHUYEV, Yu.V., doktor tekhn. nauk, prof.; MEL'NIKOV, P.M.;
PETUKHOV, S.I.; STAPANOV, G.F.; SHOR, Ya.B.; KUZ'MIN,
V.I.; BOGOLYUBSKIY, V.S.; IVANUSHKO, N.D., red.

[Principles of operations research in military technology]
Osnovy issledovaniia operatsii v voennoi tekhnike. Moskva,
Sovetskoe radio, 1965. 591 p. (MIRA 18:10)

AUTHOR: Kuz'min, V.L. SOV/128-58-11-19/24

TITLE: ~~Novaya tekhnologiya proizvodstva fitingov~~
The New Technology in Fitting Production (Novaya tekhnologiya
proizvodstva fitingov)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 11, p 30 (USSR)

ABSTRACT: A new technology for the casting of fittings was developed
at the "VEB Stahl und Walzwerk Gröditz" (GDR). The molding
boards, the upper and lower mold boxes and the two half parts
of the core boxes are centered on the guide pins, whereby
the core boxes reproduce not only the configuration of the
cores but also their arrangement in the mold. Cores and
molds are produced simultaneously. After opening the core
box, the lower part of the mold is put on the half core box
containing the core. After a turn of 180°, the half core
box is removed, leaving the core in the lower half mold,
which is then closed by the upper mold and is now ready for
casting.

1. Foundries--Equipment 2. Castings--Production

Card 1/1

KUZ'MIN, Vasilii Leont'yevich; PROKHOROVA, V.A., red.; PETROV, G.P.,
tekh.n.red.

[Under the banner of great friendship; on the 40th anniversary of
the Chuvash Soviet Autonomous Republic] Pod znamenem velikoi
druzby; k 40-letiu obrazovaniia Chuvashskoi sovetskoi avtonomii.
Cheboksary, Chuvashskoe gos.izd-vo, 1960. 85 p.

(MIRA 14:2)

(Chuvashia--Economic conditions)

VASIL'YEVSKIY, V.N.; KUZ'MIN, V.M.; YUDIN, G.M.

Results of hydrodynamic studies carried out in the Sokolovogorsk
and Zhirnovsk fields. Trudy VNIGNI no.28:148-149 '60. (MIRA 14:4)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Oil reservoir engineering)

KORSHUNOV, A.P.; KUZ'MIN, V.M.

Results of the study of piezometric wells. Nauch.-tekhn. sbor.
po dob. nefti no.15:82-86 '61. (MIRA 15:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Oil reservoir engineering)

KUZMIN, V.M.

Industrial hygiene in metallurgy. Med. letopisi 42 no.5-6:576-586
May-June 50. (CJML 20:7)

1. Dr. Viktor M. Kuzmin, Head of the Department of Industrial
Hygiene and Specialist on Hygiene. Central Scientific Research
Institute on Labor Hygiene.

KUZMIN, V.M.

Industrial hygiene in metallurgy in Bulgaria. Med. letopisi 42
no.5-6:586-592 May-June 1950. (CJML 20:7)

1. Dr. Viktor M. Kuzmin, Head of the Department of Industrial Hygiene
and Specialist on Hygiene. Central Scientific Research Institute on
Labor Hygiene.

88714

12 9100 2311, 2411

S/127/60/000/006/001/007
B012/B054

AUTHORS: Shul'ga, V. I., Engineer, Bekushev, V. I., Engineer,
Filippov, G. S., Engineer, and Kuz'min, V. M., Candidate
of Technical Sciences (Leningrad)

TITLE: Test Results of the БАН-250 (BASH-250) Drilling Unit

PERIODICAL: Gornyy zhurnal, 1960, No. 6, pp. 39 - 43

TEXT: The БАН-250 (BASH-250) drilling unit was designed at the institut Gipronikel' (State Design and Planning Scientific Research Institute of the Nickel, Cobalt, and Tin Industry), and built by the test plant of the Institute (in the third quarter of 1959). The first testing stage was performed at Priozersk, Leningradskaya oblast', in the fourth quarter of 1959. The results of this test are described. The second and final test will be made in the third and fourth quarters of 1960. Vertical blast holes were drilled in red granite with a hardness of 14 - 16 according to Protod'yakonov, 21 m deep, at a distance of 3 - 4 m from the bench edge. Rolling cutters 214, 269, and 300 mm in diameter were used. The 214 mm cutters of the

Card 1/3

88714

Test Results of the BAW-250 (BASH-250)
Drilling Unit

S/127/60/000/006/001/007
B012/B054

Povarovskiy zavod VNIIBT (Povarovo Plant of the All-Union Scientific Research Institute of Drilling Technique) and the 269 mm cutters of the Kuybyshevskiy mashinostroitel'nyy zavod (Kuybyshev Machine-building Works) were armored with cylindrical teeth of BK-8V (VK-8V) cemented carbide with spherical working surface. The 300 (295) mm rolling cutters were armored at the zavod Geopribortsvetmet (Geopribortsvetmet Plant) with cylindrical teeth of BK-15 (VK-15) cemented carbide with chisel-like working surface. Compressed air was supplied to the drill hole by three mobile BK-9 (DK-9) Diesel compressors, each with an output of 8.5 - 9 m³/min at an operational pressure of 6 atm excess-pressure. The essential technical data of the unit are: drill hole diameter 250 mm, drilling depth 22.5 m, tool feed: rope-hydraulic, chisel: three-cone, axle load: 25 t, speed of tool: 0 - 150 rpm, lifting speed: 4 m/min, tool feed: 0 - 21 m/h, removal of fines from the hole: by compressed air, specific pressure of caterpillars on the ground: 1.23 kg/cm², weight of the unit: 50 t, number of operators: 2. The test results showed that the drilling rate attained the 1.2 - 1.8 fold with the 269 mm chisel, and the 1.4 - 1.8 fold with the 300 mm chisel, as compared

Card 2/3

88714

Test Results of the B-250 (BASH-250)
Drilling Unit

S/127/60/000/006/001/007
B012/B054

to the 214 mm chisel. When perfect supports were available, all chisels proved to be suitable even when 50% of the teeth were missing or worn out. Some drawbacks were found which are to be eliminated until the second test. It is stated in conclusion: With the drilling unit under review it is possible to drill holes in rock with a hardness of 14 - 16 at an average output per shift of 24 m. It is convenient to use the unit for drilling holes with rolling cutters, 250 - 390 mm in diameter. The rolling cutters mentioned are intended for drilling under scavenging, and therefore show little durability. There are 1 figure and 3 tables.

ASSOCIATION: Institut Gipronikel' Leningrad (State Design and Planning Scientific Research Institute of the Nickel, Cobalt, and Tin Industry, Leningrad)

Card 3/3

KUZ'MIN, V. M.

Agricultural Machinery

Apparatus for applying fertilizer during the planting of potatoes. V. M. Kuz'min.
Sel. i sem. 19 No. 6, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

KUZMIN, V.M., kandidat tekhnicheskikh nauk.

Attachment to a SR-6M sowing and planting machine for planting
of seedlings in checkrows and checkrow clusters. Sel'khoz mashina
no.11: 15-16 N '54. (MIRA 7:11)
(Agricultural machinery)

USSR/Soil Science - Mineral Fertilizers.

J

Abs Jour : Ref Zhur Biol., No 22, 1958, 100071

Author : Kuz'min, V.M.

Inst : Ukrainian Scientific Research Institute of Vegetable-
Growing and Potatoes

Title : Theoretical and Experimental Study of the Sowing Process
of Granulated Fertilizers and Means of Their Mechaniza-
tion

Orig Pub : Nauchn. tr. Ukr. n.-i. in-t ovoshchevodstvo i kartofelya,
1957, 4, 103-120

Abstract : No abstract.

Card 1/1

Kuz'min, V.M., kand.tekhn.nauk

Planter attachment for checkrowing vegetables. Mekh.sil'. hosp.
9 no.3:8-9 Mr '58. (MIRA 11:4)
(Planters (Agricultural machinery))

KUZ'MIN, V.M., kand. tekhn. nauk

Research on the performance of machines used in checkrow
planting of vegetables. Mekh. sil'. hosp. 9 no. 6:26-29 Je '58.
(MIRA 11:7)

(Vegetable gardening)
(Planters(Agricultural machinery))

KUZ'MIN, V.M., kand.tekhn.nauk; LASTOVENKO, V.A., inzh.

SRN-4K plant setting machine. Mekh.sil'.hosp. 11 no.3:27-28
MR '60. (MIRA 13:6)

(Planters (Agricultural machinery))

KUZ'MIN, V.M., kand.tekhn.nauk

Working parts of potato harvesting machinery for separating
potatoes from soil. Mekh. sil'. hosp. 12 no. 1:30 Ja '61.

(MIRA 14:1)

(Potato digger (Machine))

KUZ'MIN, V.M., kand.tekhn.nauk; DZYUBA, V.I., inzh.-mekhanik

How to adjust SON-2,8 and SOSSh-2,8 planters for the wide-row
planting of vegetables. Mekh. sil". hosp. 12 no. 3:28 Mr '61.

(MIRA 14:4)

(Planters (Agricultural machinery))

KUZ'MIN, V.M., kand.tekhn.nauk

New working parts for separating soil from potatoes. Trakt. 1
sel'khoz mash. 31 no. 5:24-25 My '61. (MIRA 14:5)
(Potato digger (Machine))

KUZ'MIN, Vladimir Nikolayevich [Kuz'min, V.M.]; KAMINSKIY, L.N. [Kamins'kiy, L.N.], red.; LIMANOVA, M.I. [Lymanova, M.I.], tekhn.red.

[Urgent objectives of trade-union organizations] Nevidkladni
zavdannia profspilkovoi organizatsii. Kharkiv, Kharkivs'ke
knyzhkove vyd-vo, 1959. 19 p. (MIRA 13:4)

1. Zastupnik golovi zavkomu profspilki velosipednogo zavodu (for
Kuz'min).

(Trade unions)

(Efficiency, Industrial)

KUZ'MIN, V.N.; KURPAN, I.F.; RYNDIN, A.A.

All-Union expedition of pioneers and schoolchildren in commemoration
of the 40th anniversary of the Great October Socialist Revolution.
Geog. v shkole 20 no.3:1-6 My-Je '57. (MLRA 10:6)
(School excursions)

BOLDYREV, G.P.; VOGMAN, D.A.; NOVOKHATSKIY, I.P.; VERK, D.L.; DYUGAYEV, I.V.; KAVUN, V.M.; KURENKO, A.A.; UZBEKOV, M.R.; ARSEN'YEV, S.Ya.; YEGORKIN, A.N.; KORSAKOV, P.F.; KUZ'MIN, V.N.; STRELETS, B.A.; PATKOVSKIY, A.B.; BOLESLAVSKAYA, B.M.; INDENBOM, D.B.; FINKEL'SHTEYN, A.S.; SHAPIRO, I.S.; LAPIN, L.Yu.. Prinimali uchastiye: NEVSKAYA, G.I.; FEDOSEYEV, V.A.; KASPILOVSKIY, Ya.B., ZERNOVA, K.V.. BARDIN, I.P., akademik, otv.red.; SATPAYEV, K.I., akademik, nauchnyy red.; STRUMILIN, akademik, nauchnyy red.; ANTIPOV, M.I., nauchnyy red.; BELYANCHIKOV, K.P., nauchnyy red.; YEROFEYEV, B.N., nauchnyy red.; KALGANOV, M.I., nauchnyy red.; SAMARIN, A.M., nauchnyy red.; SLEDZYUK, P.Ye., nauchnyy red.; KHLEBNIKOV, V.B., nauchnyy red.; STRETS, N.A., nauchnyy red.; BANKVITSER, A.L., red.izd-vs; POLYAKOVA, T.V., tekhn.red.

[Iron ore deposits in central Kazakhstan and ways for their utilization] Zhelezorudnye mestorozhdeniya Tsentral'nogo Kazakhstana i puti ikh ispol'zovaniia. Otvetstvennyi red. I.P.Bardin. Moskva, 1960. 556 p. (MIRA 13:4)

1. Akademiya nauk SSSR. Mezhdunarodstvennaya postoyannaya komissiya po zhelezu. 2. Gosudarstvennyy institut po proyektirovaniyu gorn'nykh predpriyatiy zhelezorudnoy i margantsevoy promyshlennosti i promyshlennosti nemetallicheskiykh iskopayemykh (Giproruda) (for Boldyrev, Vogman, Arsen'yev, Yegorkin, Korsakov, Kuz'min, Strelets, (Continued on next card)

BOLDYREV, G.P.--(continued). Card 2.

3. Institut geologicheskikh nauk AN Kazakhskoy SSR (for Novokhatskiy).
 4. Tsentral'no-Kazakhstanskoye geologicheskoye upravleniye Ministerstva geologii i okhrany nedr SSSR (for Verk, Dyugayev, Kavun, Kurenko, Uzbekov).
 5. Nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki poleznykh iskopayemykh (Mikhanobr) (for Patkovskiy).
 6. Gosudarstvennyy institut proyektirovaniya metallurg.zavodov (Gipromet) (for Boleslavskaya, Indenbom, Finkel'shteyn, Nevskaya, Fedoseyev, Karpilovskiy).
 7. Mezhdunarodnaya postoyannaya komissiya po zhelezu AN SSSR (for Shapiro, Zernova, Kalganov).
 8. Gosplan SSSR (for Lapin).
- (Kazakhstan--Iron ores)

ZHDANOV, A. P., KARTUYANSKIY, A. L., KUZ'MIN, V. N., RYZHKOVA, I. V., FEDOTOV, P. I.,
and SHUR, L. I. (Moscow, USSR)

"Preparation Des Emusions Nucleaires et Mecanisme I leur Sensibilisation
Par La Triethanolamine."

paper presented at Program of the Second International Colloquium on Corpuscular
Photography. Montreal, 21 Aug - 7 Sep 1958.

Encl: B-3,114,647.

SOV-120-58-1-8/43

AUTHORS: Zhdanov, A.P., Kolpakov, M.I., Kuz'min, V.N., Raguzin, R.M.,
Fedotov, P.I.

TITLE: An Instrument for Measuring the Gap Lengths in the Tracks
for Particles in Photo-Emulsions (Pribor dlya izmereniya
prosvetov v trekakh chastits v fotoemul'siyakh)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 1, pp 46-47
(USSR)

ABSTRACT: The instrument is in the form of an eye-piece in whose
field of view one sees a scale, a pair of parallel lines
and the usual crosswire. The cross wire is set parallel to
the track and the gap defined by the two parallel wires is
moved along the track. This motion is achieved by means of
the two micrometers shown in Fig.2. The motion of the two
micrometers is independent of each other. There are 2
diagrams, no tables and 3 references, one of which is English

Card 1/2

SOV-120-58-1-8/43

An Instrument for Measuring the Gap Lengths in the Tracks for
Particles in Photo-Emulsions.

and 2 Soviet.

ASSOCIATION: Radiyevyy institut AN SSSR (Radium Institute of the
Academy of Sciences, USSR)

SUBMITTED: June 22, 1957.

1. Particles--Photographic analysis
2. Particles--Penetration
3. Measurement
4. Optical instruments--Applications

Card 2/2

AUTHORS: Zhdanov, A. P., Kuz'min, V. N.

57-28-5-34/36

TITLE: Preparation of Suspensions with Spherical Particles
(Polucheniye suspensiy s chastitsami sharovoy formy)

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki, 1950, Vol. 28, Nr 5,
pp. 1110-1120 (USSR)

ABSTRACT: In order to obtain a solution with spherical particles, the authors employed the electric spark method. The discharge took place between two electrodes of pure beryllium in ethyl alcohol (96% alcohol). From experimental data (Reference 6) it is known, that: 1) At a single discharge a spherical cavity is produced in both electrodes. 2) The removal of metal from both electrodes is proportional to the energy stored in the condenser. 3) The removal of metal from the anode and the cathode becomes comparable at a certain voltage and capacity. For this reason it is to be hoped to obtain particles of a certain size. The authors investigated the distribution of the beryllium particles according to their size (at various capacities of the condenser and at various volta-

Card 1/3

Preparation of Suspensions With Spherical
Particles

57-28-5-34/36

ges) and their shape. The following experimental data were ascertained: 1) At each single discharge a spherical cavity was formed in each electrode. 2) The majority of particles had a spherical shape (80%). 3) A number of particles formed at each discharge ($n \gg 1$). A series of experiments was conducted in parallel with identical C and U. All experiments yielded the same distribution of the particles as to their size. Supplementary experiments with other dielectrics (vaseline oil, transformer oil) show, that in a more viscous medium the proportion of spherical particles increases. The experiments conducted permit to draw the following conclusions. 1) At a single discharge a great number of particles is formed. 2) The distribution with respect to size is apparently independent of the microstructure of the electrode surface, but is determined by the electric parameters. 3) The viscosity of the medium influences the shape of the produced particles. The great proportion of spherical particles apparently indicates a concentrated heat emission, which leads to a melting of the metal and to its spottering. It was not the object of this

Card 2/3

Preparation of Suspensions With Spherical Particles 57-28-5-34/36

paper, to investigate this process in detail. The experiments show, however, that such an investigation will permit to clear the mechanism of such a discharge. There are 2 figures and 6 references, 3 of which are Soviet.

ASSOCIATION: Radiyevyy institut AN SSSR im. V. G. Khlopina
(Radium Institute AS USSR imeni V. G. Khlopin)

SUBMITTED: May 6, 1957

1. Metals--Processing 2. Particles--Excitation 3. Spheres
--Properties

Card 3/3

SOV/144-59-6-13/15
The Effect of Saturation on the Magnetic-field Characteristics
in Accelerators with Straight-line Sections

obtained are summarised in Figure 3.

3) Methods for the compensation of the effect of saturation on the magnetic-field characteristics. It is suggested that the best way to eliminate the effect of saturation is to shape the magnet ends in a suitable manner. Experiments have been carried out in order to determine the best profile for the magnet ends and the results obtained are illustrated in Figure 4. There are 3 figures and 3 references, of which 2 are Soviet and 1 Italian.

ASSOCIATION: Tomskiy politekhnicheskii institut
(Tomsk Polytechnical Institute)

Card 2/2

21.2100

66543

AUTHOR: Kuz'min, V.N., Aspirant

SOV/144-59-4-11/13

TITLE: Determination of the Position of the Median Surface in the Gaps of Betatron and Synchrotron Electromagnets

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1959, Nr 4, pp 113 - 117 (USSR)

ABSTRACT: In charged-particle accelerators the median surface of the magnetic field, i.e. the surface on which the radial component of the magnetic field is zero, must coincide within very narrow limits with the geometrical plane of the gap. In practice, there are small differences between these two surfaces and they are normally due to the fact that the electromagnet material is not completely uniform and to certain other factors such as the presence of iron in the neighbourhood of the machine, etc. Distortions in the median plane lead to a displacement in the position of the orbit and cause forced vibrations. The determination of the position of the median surface is difficult because the radial component of the magnetic field is small compared with the vertical component. Methods for this type of measurement have been described in the literature (Refs 2-4) but they all require a large air gap and their accuracy is

Card 1/3